

IN THE CLAIMS:

Claim 1 (Currently Amended): A computer-implemented method comprising:

at a sender, in a sender transaction:

receiving a message from a sender queue;

generating ~~a substantially unique~~ an identifier and an expiration time for the message;

saving the identifier, the expiration time, and the message in a sender database; and

sending the identifier, the expiration time, and the message from the sender to a receiver; and

~~sending the identifier, the expiration time, and the message from the sender to a receiver;~~

at the receiver, in a receiver transaction:

receiving the identifier, the expiration time, and the message from a receiver queue;

determining whether the message has expired based on the expiration time for the message;

upon determining that the message has not expired:

determining whether the message is present in a receiver database, by the identifier ~~therefore~~; and

upon determining that the message is not present in the receiver database:

saving the identifier, the expiration time, and the message in the receiver database; ~~and~~ and,

performing actions associated with the message.

Claim 2 (Original): The method of claim 1, further comprising, at the receiver, in the receiver transaction:

otherwise, upon determining that the message is present in the receiver database, discarding the message; and,

otherwise, upon determining that the message has expired, discarding the message.

Claim 3 (Original): The method of claim 1, further comprising sending an acknowledgement message from the receiver to the sender that corresponds to the message.

Claim 4 (Original): The method of claim 3, further comprising, at the sender, in a second sender transaction:

receiving the acknowledgement message; and,

deleting the message in the sender database that corresponds to the acknowledgement message, including the identifier and the expiration time for the message.

Claim 5 (Original): The method of claim 1, further comprising, at the sender, deleting the message from the sender database when the expiration time has been reached.

Claim 6 (Original): The method of claim 5, wherein deleting the message from the sender database comprises deleting the message by a scavenger thread of the sender.

Claim 7 (Original): The method of claim 1, further comprising, at the receiver, deleting the message from the receiver database when the expiration time has been reached.

Claim 8 (Original): The method of claim 7, wherein deleting the message from the receiver database comprises deleting the message by a scavenger thread of the receiver.

Claim 9 (Original): The method of claim 1, wherein the message comprises an express, non-transactional message.

Claims 10-16 (Canceled).

Claim 17 (Currently Amended): A computerized system for guaranteed, ~~exactly~~
~~once~~exactly-once delivery of an express, non-transactional message comprising:

a sender comprising:

a first queue;

a first database; and

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a first computer program designed to, in a sender transaction, receive the message from the first queue, generate ~~a substantially unique~~ an identifier and an expiration time for the message, and save the identifier, the expiration time, and the message in the first database; the program further designed to send the identifier, the expiration time, and the message; and

a receiver comprising:

a second queue;

a second database; and

a second computer program designed to, in a receiver transaction, receive the identifier, the expiration time, and the message from the second queue as received thereby from the sender, determine whether the message has expired based on the expiration time for the message, determine whether the message is present in the second database by the identifier ~~therefor~~, and upon determining that the message has not expired and is not present in the second database, save the identifier, the expiration time, and the message in the second database; and perform actions associated with the message.

Claim 18 (Original): The system of claim 17, wherein the sender further comprises a computer-readable medium and processor, such that the first computer program is executed by the processor from the medium.

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Claim 19 (Original): The system of claim 17, wherein the receiver further comprises a computer-readable medium and a processor, such that the second computer program is executed by the processor from the medium.

Claims 20-21 (Canceled).

Claim 22 (New): A computer-implemented method comprising:

at a sender, in a sender transaction:

receiving a message from a sender queue;
generating an identifier and an expiration time for the message;
saving the identifier and the expiration time in a sender database; and
sending the identifier, the expiration time, and the message from the

sender to a receiver;

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at the receiver, in a receiver transaction:

receiving the identifier, the expiration time, and the message from a
receiver queue;

determining whether the message has expired based on the expiration time
for the message;

upon determining that the message has not expired:

determining whether the identifier is present in a receiver database;

and

upon determining that the identifier is not present in the receiver
database:

saving the identifier and the expiration time in the receiver
database; and

performing actions associated with the message.
